

REMARKS

The Examiner maintains the rejections of claim 12 under 35 U.S.C. 102(e) as being anticipated by He et al ("He") and of claim 13 under 35 U.S.C. 103(a) as being unpatentable further in view of Minamino et al ("Minamino"). Applicant respectfully traverses these rejections by the Examiner.

As for claim 12 the Examiner states that He discloses, with reference to Fig. 9, a method of adjusting a fiber pigtailed assembly 116 for coupling light from an optical fiber to an optical detector with low back reflectance and minimum polarization-dependent responsivity that includes providing a source of light having a plurality of polarization states to the optical fiber, adjusting a rotation angle between a beveled end of the optical fiber and a detector surface of the optical detector adjacent the beveled end, the detector being tilted with respect to the beveled end, while observing an electrical output from the optical detector for a minimum peak-to-peak value, citing specification paragraphs 0072-0074, 0083 & 0092-0096. It should be noted that 0072-0074 & 0083 have nothing to do with Fig. 9, so it is difficult to understand how the Examiner is attempting to apply He against claim 12. Paragraphs 0092-0096 do not mention any rotational adjustments, only lateral adjustments to provide a lateral displacement between a lens optical axis for the GRIN 106 and a parallel fiber optical axis for the fiber 116. The adjustment of the device shown in Fig. 9 is described with respect to Fig. 11, paragraphs 0092-0094. Also it is noted that in Fig. 9 the detector is not tilted with respect to the beveled end of the optical fiber. Further it is noted that in Fig. 9 there is both the GRIN and a window between the beveled end of the optical fiber and the detector, which elements are used to insert an inverse PDL to counteract the PDL of the detector and which do not exist in Applicant's claimed invention.

The Examiner then states that the light source of He provides a plurality of polarization states to an optical fiber (paragraph 0029), and that the optical fiber 116 has a beveled end (Figs. 7 & 13 and paragraphs 0083 & 0101). Applicants acknowledge that He provides a light source that varies the state of polarization over a wide range of possible states of polarization (paragraph 0093) and that the optical fiber has a beveled end (paragraph 0087). The Examiner then refers to Figs. 3 and 13 for the proposition that He reads on “adjusting a rotation angle” and “the detector surface being tilted with respect to the beveled end” without referencing any supportive description. In Fig. 3 the detector is tilted, but there is no beveled end of the fiber; and in Fig. 13 the fiber has a beveled end but the detector is not tilted with respect to the beveled end. To support his conclusion the Examiner states that the tilt angle adjustment between the detector surface and the optical axis of the fiber reads on these limitations since Applicant has not specified within the claim exactly what rotation angle is adjusted. Although Applicant submits that when read in light of the specification the axis of rotation is readily apparent to one of ordinary skill in the art, Applicant proposes amending claim 12 to recite that the rotation angle is “about an optical axis of the optical fiber.” This amendment is deemed to clarify claim 12 so that the tilt angle adjustment of He obviously does not disclose the rotation angle adjustment as recited in claim 12. Another difference is that claim 12 recites minimizing a peak to peak value, whereas He measures maximum and minimum current values for a minimum difference. Thus claim 12 is deemed to be allowable as being neither anticipated nor rendered obvious to one of ordinary skill in the art by He.

Applicant also notes that He addresses the problem of minimizing the PDL inherent in the detector by intentionally introducing opposing PDL via the lens and window combinations. Applicant’s solution is just to have the fiber end beveled and

the detector tilted relative to a plane orthogonal to the optical axis, and then rotating the fiber relative to the detector about the optical axis to eliminate PDL without requiring additional elements in the optical path between the fiber and detector, which additional elements would tend to attenuate the light transmission between the two. These are completely different approaches, and therefore one does not teach or suggest the other.

With respect to claim 13 Applicant does not understand why the Examiner is citing Jiang when the rejection is over He in view of Minamino. Applicant observes that He in paragraph 0069 describes tilting the bracket, i.e., the detector, while the SOP is varying until the difference between maximum and minimum values is at a minimum. Applicant submits that the combination of He with Minamino does not teach the iterative steps of rotating the optical fiber relative to the detector and tilting the detector relative to the fiber until a minimum peak to peak value is attained. Thus since claim 13 depends from claim 12, which is deemed to be allowable, and recites additional substantive limitations, it also is deemed to be allowable as being nonobvious to one of ordinary skill in the art over He in view of Minamino.

In view of the foregoing remarks entry of this amendment and allowance of claims 12 and 13 are urged, and such action and the issuance of this case are requested. In the event the Examiner maintains the rejections, entry of this amendment is requested as limiting the issues for appeal.

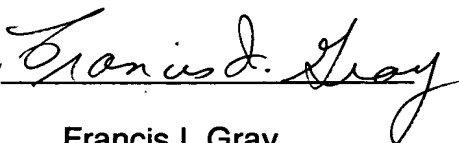
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